

Remarks

This Reply is made in response to the non-final Office Action dated March 24, 2011. Claims 5 and 8 – 12 are pending. Claim 5 was amended to more particularly point out and distinctly claim the invention. Support for the amendment is found in the Table found on page 6 of the original specification. No new matter has been added. It is respectfully submitted that the rejection under 35 USC 112 has been overcome.

In the Office Action, the Examiner rejected claims 5 and 8-12 under 35 U.S.C. 103(a) as being unpatentable over DE Patent No. 1441336 to Weinstein (“Weinstein”) in view of Chemical Abstracts 120 to Shareef et al. (“Shareef”).

I. Examiner Interview

Applicants would like to thank Examiner John Hoffmann for the courtesies extended in the telephonic interview held on August 3, 2011. Claim amendments were discussed to overcome the rejection under 35 USC 112 and to overcome the rejection. No agreement was reached.

II. Rejection of Claims 5 and 8-12 over Weinstein in view of Shareef

According to the Examiner, the “is fired” limitation does not define over the obvious Weinstein-Shareef composition because (1) it is well known that firings are time and temperature dependent, (2) the 1093-1177°C range for Weinstein high melting point ceramics is mostly lower than the corresponding melting points and one would expect to use a temperature less than 900°C melting point, (3) it is a matter of common sense that one would not want to heat the material near its melting point since the idea is for the ceramic to mature/vitrify into a porcelain body, not a molten mass, and (4) since it is clear that the temperatures are important result-effective variables, it would have been obvious to perform routine experimentation to determine the optimal temperatures for processing. For the reasons set forth below this rejection is respectfully traversed.

The claimed invention is now directed to a method of fabricating a restoration comprising providing a framework possessing a coefficient of thermal expansion of as high as about $18 \times 10^{-6}/^{\circ}\text{C}$; fusing a dental porcelain composition comprising a leucite crystallite phase dispersed in a feldspathic glass matrix to said framework thereby providing a smooth, dental porcelain thereon; said fused dental porcelain composition having a maturing temperature in the range from about 750° to about 1050°C, a

coefficient of thermal expansion (room temperature to 450°C) of from about $12 \times 10^{-6}/^{\circ}\text{C}$ to about $17.5 \times 10^{-6}/^{\circ}\text{C}$, and comprising: 57-66 SiO_2 , 7-15 Al_2O_3 , 7-15 K_2O , 7-12 Na_2O and 0.5-3 Li_2O , and comprising a dispersed leucite crystallite phase representing from about 5 to about 65 weight percent of the dental porcelain, and wherein the leucite crystallites possess diameters not exceeding about 10 microns; and wherein the fusing occurs at a temperature ranging from about 750° to about 850°C.

In the claimed invention, fusing occurs at about 750° to 850°C. This process is not taught in either Weinstein or Shareef. The claimed process is not rendered obvious over the combination of references.

Accordingly, it is believed that claims 5 and 8 – 12 specify patentable subject matter and are in condition for allowance. Applicants therefore respectfully request favorable reconsideration and allowance of this application. The Examiner is requested to telephone applicants' attorney at the number listed below if it will advance the prosecution of this case. The Patent Office is authorized to charge any fee or credit any overpayment to Deposit Account No. 500730.

Respectfully submitted,

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